Prevalence and Impact of Self-Citation in Academic Plastic Surgery

Background: Increasingly, the h-index is being used to define scholarly output and promotion critieria (1). However, studies suggest that self-citation may limit the utility of the h-index via artificial inflation. The purpose of this study was to evaluate the prevalence and impact of self-citation on the h-index in a cohort of academic plastic surgeons.

Methods: The study cohort consisted of full-time surgeon faculty affiliated with a random selection of 34 integrated plastic surgery residency programs (50%). The Scopus database was used to determine the h-index and number of citations with and without self-citations. Total number of peer-reviewed publications was correlated with change in h-index via self-citation.

Results: A total of 247 plastic surgeons were included. 78.6% cited previous work at least once (mean 34.3 +/- 87.5 self-citations). These self-citations accounted for 4.8% of all citations. Including self-citations in bibliometric analyses increased h-indices from 9.5 +/- 6.9 to 10.2 +/- 7.6. A minority of researchers (20.1%) increased their h-index via self-citation by at least one integer value (range, 0-5). At a threshold delta h-index of 1, authors had on average 78 articles and an h-index of 18. As authors achieved more publications, they were able to increase their h-index via self-citation to a greater degree.

Conclusions: The practice of self-citation is prevalent among plastic surgeon investigators, but its impact on the h-index is negligible for most authors. This finding suggests committees may disregard this factor for promotion. With more publications, researchers can increase h-indices via self-citation, but at a high threshold of published articles.

Reference Citations:

(1) Gast, K. M., Kuzon Jr, W. M., & Waljee, J. F. (2014). Bibliometric Indices and Academic Promotion within Plastic Surgery. *Plastic and reconstructive surgery,134*(5), 838e-844e.